INDEX

COMBUSTION, EXPLOSION, AND SHOCK WAVES
Volume 11, Numbers 1-6, 1975



COMBUSTION, EXPLOSION, AND SHOCK WAVES

Volume 11, Numbers 1-6, 1975

(A translation of Fizika Goreniya i Vzryva)

A

Abrukov, S. A. - 110
Adzhemyan, V. Ya. - 172, 454
Afanasenkov, A. N. - 778
Afanas'ev, G. T. - 395
Aldushin, A. P. - 112
Alekseev, N. M. - 566
Andreev, O. K. - 327
Androsov, A. S. - 14
Antipenko, A. G. - 371, 391
Antonov, A. V. - 131
Avvakumov, E. G. - 785
Azatyan, V. V. - 221

B

Babkin, V. S. - 118, 566, 584 Babul', V. - 71, 224 Babushok, V. I. - 584 Baev, V. K. - 121, 143, 587, 733 Bagrovskii, Ya. - 224 Bakhman, N. N. - 424 Balakir, É. A. - 36 Balakirev, V. F. - 611 Baratov, A. N. - 759 Bareskov, N. A. - 36 Barzykin, V. V. - 136 Basevich, V. Ya. - 210 Bavina, T. V. - 660 Berezhan'skii, K. - 224 Bergel'son, V. L - 622 Berman, V. S. - 155, 592 Bloshenko, V. N. - 630 Bobolev, V. K. - 94, 327, 395 Bogdanovskaya, E. L. - 667 Boldyrev, V. V. - 611 Boldyreva, A. V. - 611 Bondar', M. P. - 549 Bondarenko, T. S. - 705 Bordzilovskii, S. A. - 429, 537 Boreisho, A. S. - 561 Borisov, A. A. - 614, 774 Borovkov, L. S. - 698 Brazhnikov, E. M. - 94 Breusov, O. N. - 660 Bunev, V. A. - 118, 584

Burenin, Yu. A. - 367 Bushuev, Yu. G. - 36 Butakov, A. A. - 482, 579

C

Chekin, B. S. - 237 Chernov, Yu. V. - 465 Chizhova, N. G. - 516 Chubarov, V. M. - 252 Chufarov, G. I. - 611

D

Danilenko, V. A. - 778
Davidchuk, E. L. - 332
Davydov, V. V. - 126
Demchuk, A. F. - 286
Denisyuk, A. P. - 14, 271
Deribas, A. A. - 1, 133, 286, 386, 695
Dik, I. G. - 193
Dimitrov, V. I. - 751
Dremin, A. N. - 258, 371, 660
Dubinin, V. V. - 350
Dubnov, L. V. - 667
Dubovik, A. V. - 94
Dudkin, V. A. - 810
D'yakov, V. E. - 785

\mathbf{E}

Egorova, T. I. - 276 Él'natanov, A. I. - 124 Ermolaev, B. S. - 280, 614 Erokhin, V. T. - 180 Ershov, A. P. - 798 Erygin, A. T. - 126 Evmenov, V. F. - 243 Evtyukhin, N. V. - 644

F

Faddeenkov, N. N. - 541 Fedina, Z. I. - 214 Fedorov, Yu. I. - 180 Fedorova, O. N. - 36 Filonenko, A. K. - 301 Fogel'zang, A. E. - 172, 454, 719 Fominov, K. G. - 14 Frolov, Yu. V. - 27 Frost, V. A. - 606

G

Garanin, A. F. - 733 Geintse, N. S. - 124 Gel'fand, B. E. - 774 Gendugov, V. M. - 769 Genich, A. P. - 644 Gladilin, A. M. - 406 Glazkova, A. P. - 327 Glikman, B. F. - 516 Gnutov, V. V. - 131 Godunov, S. K. - 1 Golovichev, V. L - 675 Gorshkov, N. N. - 671 Gostintsev, Yu. A. - 336 Granovskii, É. A. - 217 Gremyachkin, V. M. - 313 Grigor'ev, Yu, M. - 21, 136, 477 Gubin, S. A. - 774 Gudkovich, V. N. - 217 Gur'ev, V. A. - 516 Gusachenko, L. K. - 559 Gusev, O. V. - 76 Gussak, L. A. - 707

I

Ilyukhin, V. S. - 421, 563 Isaev, N. A. - 110 Istratov, A. G. - 313 Itin, V. L. - 293, 626 Ivanov, A. G. - 401 Ivashchenko, A. V. - 561 Ivashchenko, Yu. S. - 185, 705

K

Kachan, M. S. - 655, 816 Kachushkin, V. I. - 110 Karabanov, Yu. F. - 395

Karakhanov, S. M. - 429, 537 Kashporov, L. Ya. - 27 Khaikin, B. I. - 112, 573, 630 Kharatyan, S. L. - 21, 477 Kharlamov, Yu. A. - 76 Khasainov, B. A. - 280, 614 Khasyanov, Kh. Zh. - 719 Khubaev, V. G. - 271 Kirko, V. I. - 813 Kirsanov, Yu. A. - 268 Kiselev, A. N. - 804 Kiselev, Yu. V. - 655 Kisilyakhov, E. K. - 199 Klimov, A. M. - 678 Klyachko, L. A. - 471 Kogarko, S. M. - 210, 648, 774 Kolesnikov, B. Ya. - 52, 114, Kolvasov, S. M. - 454, 719 Komarov, A. S. - 185 Kompaneets, A. S. - 693 Kondratenkov, V. I. - 283 Kondrikov, B. N. - 290 Konev, É, V. - 199, 634, 685, 730 Konon, Yu. A. - 249 Korobchenko, Yu. G. - 705 Korobeinikov, Yu. G. - 737 Korobov, V. A. - 283 Korotkov, A. I. - 280, 614 Korzun, M. - 71 Kostyukov, N. A. - 386 Kosyakin, A. E. - 36 Koval'skaya, G. A. - 415 Kozhukh, M. S. - 343 Kozlova, N. N. - 553 Kozorezov, K. I. - 89, 789 Kozyreva, T. M. - 271 Krivulin, V. N. - 759 Krupkin, V. G. - 600 Krys'kov, S. L. - 229 Ksandopulo, G. I. - 52, 114, 350, 714 Ksenofontov, S. I. - 110 Kudaibergenov, S. E. - 714 Kudinov, V. V. - 76 Kudryavtsev, E. A. - 759 Kudryavtsev, Yu. V. - 36

Lebedeva, M. I. - 448 Leipunskii, O. I. - 313 Lesnyak, S. A. - 500, 765 Leventuev, V. P. - 663 Levin, A. M. - 48 Levin, V. A. - 529 Librovich, V. B. - 810 Lobanov, I. N. - 424 Losev, S. A. - 689 Loshkarev, V. A. - 39 Lovachev, L. A. - 584, 759 Lozovoi, V. D. - 48 Luzin, A. N. - 744

M

Makarov, V. N. - 689 Maksimov, É. I. - 482, 579 Maksimov, N. N. - 110 Maksimov, Yu. Ya. - 110 Mali, V. I. - 1 Mal'tsev, V. M. - 332 Malunov, V. V. - 110 Manelis, G. B. - 644, 682 Mansurov, Z. A. - 714 Manzhalei, V. I. - 128 Marchenko, G. N. - 110 Marchenko, V. V. - 439 Margolin, A. D. - 421, 559, 600, 719 Markov, V. V. - 529 Mashkinov, L. B. - 477 Matveev, V. N. - 606 Matytsin, A. I. - 785 Medvedev, N. A. - 110 Medzyanovskii, É. B. - 667 Merzhanov, A. G. - 21, 477 Mikhalev, M. S. - 276 Mitrofanov, V. V. - 63 Mitrofanova, R. P. - 611 Mysov, V. G. - 421

N

Nabatov, S. S. - 258, 371, 391
Naiborodenko, Yu. S. - 292, 626
Nazarov, M. A. - 765
Nemchinov, I. V. - 622, 663
Nesterenko, V. F. - 105, 279, 376
Novikov, A. S. - 648
Novikov, S. S. - 336, 421
Novikova, V. V. - 622

Odnorog, D. S. - 52, 114, 350 Ostretsov, G. A. - 27

P

Parshukov, P. A. - 131 Pavlenko, V. L. - 185 Pavlyukhin, Yu. G. - 611 Perekhval'skii, V. S. - 262 Perezudov, N. I. - 482 Pershin, S. V. - 660 Petrov, G. G. - 309 Petrov, Yu. M. - 332 Petrukhin, A. I. - 553 Piskunov, B. G. - 217 Pleshanov, A. S. - 569 Pleshanov, Yu. E. - 553 Pluzhnik, V. I. - 131 Polishchuk, D. I. - 189, 471 Popov, O. E. - 648 Posvyanskii, V. S. - 210 Pritsker, O. V. - 355

R

Reshetnikov, S. M. - 268
Rogov, A. V. - 202
Romanov, O. Ya. - 163, 319, 439
Romanova, V. I. - 693
Romashov, A. N. - 243, 252
Rozantsev, É. G. - 327
Rozenberg, A. S. - 136
Rukhin, V. B. - 810
Rumanov, É. N. - 136, 573
Russiyan, E. K. - 94
Ryaboshapko, B. L. - 76
Ryazantsev, Yu. S. - 155
Rybakov, V. A. - 553

S

Safaryan, M. N. - 521
Sagindykov, A. A. - 714
Salov, A. N. - 262
Semenov, A. N. - 506
Semenov, E. S. - 707
Serbinov, A. E. - 765
Sergeev, V. V. - 89, 343, 789
Serikov, S. V. - 98
Sevast'yanov, I. M. - 640
Shchetinin, V. G. - 395
Shchukin, V. K. - 268
Shekhter, B. I. - 229
Shelukhin, G. G. - 439, 561

Kulikov, V. I. - 252

Kurbatskii, N. P. - 634

Kutsenogii, K. P. - 459

Kuznetsov, V. M. - 541

Kuznetsov, V. R. - 487

Kutsovskii, E. Ya. - 431

Kursheva, L. A. - 214

Shevchuk, V. G. - 189 Shkadinskii, K. G. - 448 Shorshorov, M. Kh. - 76 Shushko, L. A. - 229 Shvedov, K. K. - 667 Shvetsov, G. A. - 367 Sil'vestrov, V. V. - 556, 671 Simonenko, V. N. - 459 Simonov, I. V. - 237 Simonov, V. A. - 286, 549 Sindyukov, A. V. - 180 Skrebkov, O. V. - 521 Slutskii, V. G. - 500 Sobolenko, T. M. - 249 Soloukhin, R. I. - 415, 675 Stanyukovich, A. K. - 274 Staver, A. M. - 105, 286, 386, 431, 785 Staver, G. V. - 262 Stepanov, V. N. - 27 Stolin, A. M. - 360 Strizhevskii, I. I. - 124, 214 Strunin, V. A. - 682 Styron, L. V. - 355 Subbotin, V. A. - 83, 411 Sukhanov, L. A. - 336 Sukhinin, A. I. - 634, 685, 726 Sulyaev, V. A. - 553 Surovikin, V. F. - 202

Suyushev, V. A. - 58, 566 Svetlov, B. S. - 172, 454 Syshchikova, M. P. - 506

T

Tanin, K. S. - 640
Tararin, V. N. - 355
Titov, V. M. - 556, 671
Tivanov, G. G. - 39
Tokarev, N. P. - 14
Tret'yakov, P. K. - 733
Trishin, Yu. A. - 655, 816
Troshin, Ya. K. - 500, 765
Trush, F. F. - 283
Tyul'panov, R. S. - 355
Tyurin, N. P. - 516

U

Urtiew, P. A. - 434 Urushkin, V. P. - 671

V

Vartanyan, Zh. S. - 477 Vasil'ev, A. A. - 436 Velikovskii, É. T. - 94 Veretennikov, V. A. - 136 Vershennikov, V. I. - 301 Vershinin, L. V. - 202 Vilyunov, V. N. - 43, 193 Voitenko, A. E. - 813 Vovchuk, Ya. I. - 471

Y

Yablonskii, G. S. - 751 Yakovlev, V. P. - 126 Yakushev, V. V. - 258, 371, 391 Yakusheva, A. G. - 283 Yampol'skii, P. A. - 693 Yarin, L. P. - 494 Yasakov, V. A. - 121, 143, 587 Yumashev, V. L. - 606

2

Zakaznov, V. F. - 214 Zakharenko, I. D. - 133 Zamuraev, V. P. - 415 Zarko, V. E. - 459 Zemskov, N. A. - 94 Zholudeva, T. A. - 136 Zolotko, A. N. - 189, 471 Zverev, I. N. - 769 Zverev, N. I. - 769



COMBUSTION, EXPLOSION, AND SHOCK WAVES Volume 11, Numbers 1-6, 1975

(A translation of Fizika Goreniya i Vzryva)

Volume 11, Number 1 January-February, 1975

	Eng	./Russ.
Influence of Material Viscosity on the Jet Formation Process during Collisions of		
Metal Plates - S. K. Godunov, A. A. Deribas, and V. I. Mali	1	3
Powders - A. S. Androsov, A. P. Denisyuk, N. P. Tokarev, and K. G. Fominov Ignition of Titanium in Nitrogen - S. L. Kharatyan, Yu. M. Grigor'ev,	14	18
and A. G. Merzhanov. Investigation of the Agglomeration of the Condensed Phase with the Combustion of Model Compositions with a High Content of Powdered Metals	21	26
- L. Ya. Kashporov, Yu. V. Frolov, G. A. Ostretsov, and V. N. Stepanov Rate of Combustion of Exothermal Mixtures - É. A. Balakir, Yu. G. Bushuev,	27	33
N. A. Bareskov, A. E. Kosyakin, Yu. V. Kudryavtsev, and O. N. Fedorova Investigation of Certain Physicochemical Processes in Carbonized Layers of	36	43
Ablating Heat Shields - V. A. Loshkarev and G. G. Tivanov	39	46
Criterial Description of Turbulent-Combustion Rate - V. N. Vilyunov	43	51
 A. M. Levin and V. D. Lozovoi Low-Temperature Zone of the Front of Hydrocarbon Flames. II. Oxidation of Propane near the Flame Front in the Presence of C₂F₄Br₂ - G. I. Ksandopulo, 	48	56
B. Ya. Kolesnikov, and D. S. Odnorog	52	60
- V. A. Suyushev	58	67
- V. V. Mitrofanov	63	73
- V. Babul' and M. Korzun	71	82
M. Kh. Shorshorov, V. V. Kudinov, O. V. Gusev, and B. L. Ryaboshapko	76	88
Two Kind of Transverse Wave Structures in Multifront Detonation - V. A. Subbotin Three-Stage Isentrope for the Expansion of Detonation Products	83	96
- K. I. Kozorezov and V. V. Sergeev	89	102
E. M. Brazhnikov, and N. A. Zemskov	94	108
- S. V. Serikov	98	112
Structure of Shock Waves in Metals - V. F. Nesterenko and A. M. Staver	105	119
BRIEF COMMUNICATIONS Effects of an Electric Field on Combustion in Condensed Systems - S. A. Abrukov, N. A. Isaev, V. I. Kachushkin, S. I. Ksenofontov, N. N. Maksimov, Yu. Ya. Maksimov, V. V. Malunov, G. N. Marchenko,		
and N. A. Medvedev	110	126

	Engl.	/Russ
Effects of Thermophysical Characteristics in the Stability of Stationary Combustion in a Gas-Free System - A. P. Aldushin and B. I. Khaikin	112	128
Presence of Diethylamine near a Flame Front - G. I. Ksandopulo, B. Ya, Kolesnikov, and D. S. Odnorog	114	131
Causes of Deviations from Le Chatelier's Principle for Flame-Propagation Limits		
- V. A. Bunev and V. S. Babkin	118	135
- V. K. Baev and V. A. Yasakov Effects of Hydrogen on the Critical Flame-Extinction Diameter for Ammonia-	121	138
Hydrogen-Air Mixtures - A. I. Él'natanov, N. S. Geintse, and I. I. Strizhevskii Flame Formation in an Exploxive Mixture Ignited by a Discharge	124	142
- A. T. Erygin, V. P. Yakovlev, and V. V. Davydov	126	144
Detonation of Acetylene near the Limit - V. I. Manzhalei	128	146
- V. I. Pluzhnik, V. V. Gnutov, A. V. Antonov, and P. A. Parshukov Determination of Limiting Collision Conditions Ensuring the Welding of Metals by	131	149
Explosion - A. A. Deribas and I. D. Zakharenko	133	151
CHRONICLE Summaries of the Fourth All-Union Symposium on Combustion and Explosion		
- V. V. Barzykin, V. A. Veretennikov, Yu. M. Grigor'ev, T. A. Zholudeva, A. S. Rozenberg, and É. N. Rumanov	136	154
Volume 11, Number 2 March-April, 1975		
Stability of a Diffusion Flame in Single and Mixed Jets - V. K. Baev		
and V. A. Yasakov	143	163
in a Condensed Phase - V. S. Berman and Yu. S. Ryazantsev	155	179
The Nonstationary Combustion Rate of Gunpowder - O. Ya. Romanov Combustion of Organic Periodates and Iodates - A. E. Fogel'zang, V. Ya. Adzhemyan,	163	188
and B. S. Svetlov Nonstationary Processes during Quenching of Condensed Systems in a Half-Closed Volume by a Combination Method – V. T. Erokhin, Yu. I. Fedorov,	172	199
and A. V. Sindyukov	180	208
Investigation of the Electrophysical Characteristics of the Condensed Phase during Combustion of Ballistic-Type Powders - Yu. S. Ivashchenko,	200	
A. S. Komarov, and V. L. Pavlenko	185	213
and D. I. Polishchuk On the Frontal Combustion in a Slightly Intense Large-Scale Turbulent Stream	189	218
- V. N. Vilyunov and I. G. Dik	193	223
Effects of Diameter on the Combustion of Cylindrical Plant Particles – É. V. Konev and E. K. Kisilyakhov	199	229
Carbon Black Formation in the Incomplete Combustion of Benzene - V. F. Surovikin, A. V. Rogov, and L. V. Vershinin	202	233
Relaxation Kinetics in Propagation of a Methane-Oxygen Flame - V. Ya. Basevich,	210	242
S. M. Kogarko, and V. S. Posvyanskii		
L. A. Kursheva, and Z. I. Fedina	214	247
É. A. Granovskii, and B. G. Piskunov	217	251
- V. V. Azatyan	221	256

	Eng./	Russ.
Explosive Pressing of Powders - V. Babul', Ya. Bagrovskii, and K. Berezhan'skii Bending of a Metal Strip by a Sliding Detonation Wave - L. A. Shushko,	224	259
B. I. Shekhter, and S. L. Krys'kov	229	264
High-Velocity Collisions of Iron Plates - I. V. Simonov and B. S. Chekin	237	274
Section of a Plane in a Medium - A. N. Romashov and V. F. Evmenov	243	282
Explosive Welding of Lead Bronzes to Steel - Yu. A. Konon and T. M. Sobolenko Energy Transfer to the Medium in an Underground Explosion - V. I. Kulikov,	249	289
A. N. Romashov, and V. M. Chubarov Electrical Properties of Nitromethane under Shock Compression - S. S. Nabatov,	252	292
V. V. Yakushev, and A. N. Dremin	258	300
and G. V. Staver	262	304
Dependence of the Rate of Polymer Decomposition on the Degree of Conversion - Yu. A. Kirsanov, V. K. Shchukin, and S. M. Reshetnikov The Effects of Ratio of PbO to Carbon Black on the Burning Rate of Ballasted	268	312
Gunpowder - A. P. Denisyuk, T. M. Kozyreva, and V. G. Khubaev Approximate Analytic Evaluation of Normal Reflection of Shock Waves in Real Gases	271	315
- A. K. Stanyukovich	274	318
and T. I. Egorova	276 279	321
- V. F. Nesterenko	280	325
Apparatus for Simultaneous Determination of Heat Release, Burning Rate, and Susceptibility to Thermal Effects of Pyrotechnic Agents - V. A. Korobov,	200	020
V. I. Kondratenkov, A. G. Yakusheva, and F. F. Trush	283	328
Second International Symposium on the Use of Explosion Energy to Produce Metallic Materials with New Properties - A. F. Demchuk, A. A. Deribas,		
V. A. Simonov, and A. M. Staver Explosives Testing Abroad (Work of the European Commission on the Unification	286	331
of Explosives Test Methods) - B. N. Kondrikov	290	334
Volume 11, Number 3 May-June, 1975		
Gasless Combustion of Metal Powder Mixtures 1. Mechanism and Details		
- Yu. S. Naiborodenko and V. I. Itin	293	343
- A. K. Filonenko and V. I. Vershennikov	301	353
Nitrogen Burning of Metals - G. G. Petrov	309	362
Model for the Combustion of Metal Droplets - V. M. Gremyachkin, A. G. Istratov, and O. I. Leipunskii	313	366
Integral Equations in the Theory of Unsteady Combustion of Powder O. Ya. Romanov	319	374
Effect of Functional Groups in the Inhibitor Molecule on the Combustion of Hexogen - A. P. Glazkova, É. G. Rozantsev, O. K. Andreev, and V. K. Bobolev	327	384
Infrared Spectral Study of Low-Density Flame Jet of Ammonium Perchloride-Based Model Mixtures - E. L. Davidchuk, V. M. Mal'tsev, and Yu. M. Petrov	332	390
and L. A. Sukhanov	336	394

		Engl./Russ.	
Combustion of 1,3-Diazidopropan-2-ol - V. V. Sergeev and M. S. Kozhukh Low-Temperature Zone in a Hydrocarbon-Flame Front. Part 4. Energy Aspects of the Oxidation of Propane near a Flame Front - G. I. Ksandopulo, B. Ya. Kolesnikov,	343	403	
D. S. Odnorog, and V. V. Dubinin	350	412	
and V. N. Tararin	355	419	
- A. M. Stolin	360	425	
and G. A. Shvetsov	367	433	
- A. G. Antipenko, A. N. Dremin, S. S. Nabatov, and V. V. Yakushev	371	438	
Electrical Effects in Shock Loading of Metal Contacts - V. F. Nesterenko	376	444	
Collision of Plane Detonation Waves in Ammonite 6ZhV - A. A. Deribas, N. A. Kostyukov, and A. M. Staver.	386	456	
Electrical Polarization of an Insulator with Fast Relaxation on Shock Compression			
- A. G. Antipenko, S. S. Nabatov, and V. V. Yakushev	391	462	
- G. T. Afanas'ev, V. K. Bobolev, Yu. F. Karabanov, and V. G. Shchetinin	395	467	
Cleavages in a Quasiacoustic Approximation — A. G. Ivanov Steady-State Detonation in a Mixture of a Gaseous Explosive with a Finely Divided	401	475	
Powder - A. M. Gladilin	406	480	
Collision of Transverse Detonation Waves in Gases - V. A. Subbotin	411	486	
and R. I. Soloukhin.	415	491	
BRIEF COMMUNICATIONS			
Role of Heterogeneity of Composite Solid Fuels in the Mechanism of Pulsation Burning			
- V. S. Ilyukhin, A. D. Margolin, V. G. Mysov, and S. S. Novikov	421	498	
Effect of Heat-Conducting Elements on Burning Rate - N. N. Bakhman and I. N. Lobanov Optical Observation of Shock-Wave Processes in Liquid Hydrogen	424	501	
- S. A. Bordzilovskii and S. M. Karakhanov	429	506	
E. Ya. Kutsovskii and A. M. Staver	431	509	
Comments on "Compression-Wave Series behind a Detonation Front" - P. A. Urtiew	434	512	
Compression Waves behind a Detonation Front - A. A. Vasil'ev	436	515	
Volume 11, Number 4 July-August, 1975			
Ignition and Initial Burning of Fuel Powder in a Tube - V. V. Marchenko, O. Ya. Romanov,			
and G. G. Shelukhin	439	519	
- K. G. Shkadinskii and M. I. Lebedeva	448	530	
S. M. Kolyasov, B. S. Svetlov, and V. Ya. Adzhemyan	454	536	
Effects of Light Intensity on the Nonstationary Combustion Rate in a Transient Process - V. E. Zarko, V. N. Simonenko, and K. P. Kutsenogii	459	541	
Errors of Temperature-Distribution Measurement for Planar Probes in a Burning Powder - Yu. V. Chernov	465	548	
High-Temperature Combustion of an Immobile Boron Particle in an Oxygen-Bearing			
Medium - Ya. I. Vovchuk, A. N. Zolotko, L. A. Klyachko, and D. I. Polushchuk Heat-Release Kinetics in High-Temperature Nitriding of Zirconium Wires	471	556	
- A. G. Merzhanov, Yu. M. Grigor'ev, S. L. Kharatyan, L. B. Mashkinov,	477	500	
and Zh. S. Vartanyan	477	563	

	Eng./	/Russ.
Critical Ignition Conditions in a Laminar Flow - É, I. Maksimov, N. I. Perezudov,		
and A. A. Butakov	482	568
Fuel Mixtures - V. R. Kuznetsov	487	574
Parameter Calculation for a Diffusion Flame in a Gas Mixture - L. P. Yarin Effect of Composition of the Oxidizer on the Rate of Heterogeneous (Gas-Film)	494	581
Detonation - S. A. Lesnyak, V. G. Slutskii, and Ya. K. Troshin	500	589
- A. N. Semenov and M. P. Syshchikova	506	596
N. P. Tyurin, and N. G. Chizhova	516	609
Oscillators in a Rare Gas Medium - M. N. Safaryan and O. V. Skrebkov Initiation of Detonation by Concentrated Release of Energy - V. A. Levin	521	614
and V. V. Markov	529	623
- S. A. Bordzilovskii and S. M. Karakhanov	537	633
Fragmentation Schemes - V. M. Kuznetsov and N. N. Faddeenkov Effect of Shock Stressing on Diffusion Mobility of Reactants in a Cu-Al Alloy	541	637
- M. P. Bondar' and V. A. Simonov	549	646
and V. A. Sulyaev BRIEF COMMUNICATIONS	553	650
Convergent Shock Wave in Liquid Hydrogen - V. V. Sil'vestrov and V. M. Titov Flame Penetration Into a Paste Extruded from a Nozzle - L. K. Gusachenko	556	655
and A. D. Margolin	559	657
A. V. Ivashchenko, and G. G. Shelukhin	561	659
Low-Frequency Pulsation of Burning Powders in Vacuum - V. S. Ilyukhin Study of the Structure of Supersonic Flows by Absorption of Laser Radiation	563	660
- V. A. Suyushev, N. M. Alekseev, and V. S. Babkin	566	662
Instability of a Flame Front in a Compressible Ideal Medium - A. S. Pleshanov	569	665
Volume 11, Number 5 September-October, 1975		
Exothermic Reaction Regimes in a One-Dimensional Flow - B. I. Khaikin		
and É. N. Rumanov Unsteady Processes Accompanying an Exothermic Reaction in a Flow	573	671
- A. A. Butakov and É. I. Maksimov	579	678
V. A. Bunev, V. S. Babkin, and L. A. Lovachev	584	684
- V. K. Baev and V. A. Yasakov	587	687
- V. S. Berman	592	693
in an Acceleration Field – A. D. Margolin and V. G. Krupkin	600	702
Fluctuations - V. N. Matveev, V. A. Frost, and V. L. Yumashev Effects of Spinels on the Pyrolysis and Combustion Rates for Ammonium Perchlorate Mixtures - A. V. Boldyreva, R. P. Mitrofanova,	606	710
V. V. Boldyrev, V. F. Balakirev, G. I. Chufarov, and Yu. G. Pavlyukhin	611	715

	Engl./I	Russ.
Convective-Combustion Propagation in Porous Low and High Explosives		
- B. S. Ermolaev, B. A. Khasainov, A. A. Borisov, and A. I. Korotkov	614	720
- V. I. Bergel'son, I. V. Nemchinov, and V. V. Novikova	622	730
of the Products - Yu. S. Naiborodenko and V. I. Itin	626	734
and B. I. Khaikin	630	738
- A. I. Sukhinin, É. V. Konev, and N. P. Kurbatskii	634	743
of Helmholtz Resonator Type - I. M. Sevast'yanov and K. S. Tanin Equilibrium Composition of High-Temperature Systems Based on C, H, O, and N for a Gasdynamic CO ₂ Laser - A. P. Genich, N. V. Evtyukhin,	640	750
and G. B. Manelis	644	755
- S. M. Kogarko, O. E. Popov, and A. S. Novikov Interaction of Shock Waves with the Contact Surface of Colliding Objects	648	759
- M. S. Kachan, Yu. V. Kiselev, and Yu. A. Trishin	655	767
O. N. Breusov, A. N. Dremin, and S. V. Pershin	660	773
and I. V. Nemchinov	663	776
- E. I. Bogdanovskaya, L. V. Dubnov, É. B. Medzyanovskii, and K. K. Shvedov Investigation of Shock-Wave Processes in Liquid Hydrogen Using Rheostatic Probes	667	781 786
- V. V. Sil'vestrov, N. N. Gorshkov, V. M. Titov, and V. P. Urushkin	671	100
Combustion Kinetics of a Mixture of Hydrogen and Nitrous Oxide in Shock Waves		
- V. I. Golovichev and R. I. Soloukhin	675	790
Erosive Burning of Propellants - A. M. Klimov	678	793
- V. A. Strunin and G. B. Manelis	682	797
and A. I. Sukhinin	685	799
in a Supersonic Nozzle - V. N. Makarov and S. A. Losev	689	804
- A. S. Kompaneets, V. I. Romanova, and P. A. Yampol'skii	693	807
Volume 11, Number 6 November-December, 1975		
The Work of Academician M. A. Lavrent'ev in the Field of the Physics of Explosion		
- A. A. Deribas	695	815
Vibrational Combustion Conditions-I. S. Borovkov	698	819
and T. S. Bondarenko	705	825
and E. S. Semenov	707	830
and Z. A. Mansurov	714	838

	Eng.	/Russ
Combustion of Picric Acid - A. E. Fogel'zang, A. D. Margolin, S. M. Kolyasov,		
and Kh. Zh. Khasyanov	719	844
Temperature Distribution in a Burning Layer of Pine Needles - A. I. Sukhinin	726	850
Radiation from the Flame Front of Combustible Forest Materials - É. V. Konev	730	855
Investigation of Flow Structure behind an Axisymmetric Body Washed by a Supersonic Stream, with Blowing of Inert and Reaction Gases-V. K. Baev,	130	000
A. F. Garanin, and P. K. Tret'yakov	733	859
Calculation of Three-Body Recombination Rate Constants - Yu. G. Korobeinikov	737	863
Elastic Forerunners of Plastic Waves Propagated in Nonsymmetric Directions of a		
Crystal - A. N. Luzin	744	871
Kinetics of Complex Chemical Reactions - V. I. Dimitrov and G. S. Yablonskii	751	879
Flammability Limits. 1. Ammonia-Air Mixtures - V. N. Krivulin, L. A. Lovachev,		
E. A. Kudryavtsev, and A. N. Baratov	759	890
Ignition Delay in a Heterogeneous (Gas-Film) Detonation Front-S. A. Lesnyak,		
M. A. Nazarov, A. E. Serbinov, and Ya. K. Troshin	765	897
Detonation of Heterogeneous Systems of Preliminarily Unmixed Phases - I. N. Zverev,		
V. M. Gendugov, and N. I. Zverev	769	903
Effect of Inert Solid Particles on Detonation of a Combustible Gas Mixture		
- A. A. Borisov, B. E. Gel'fand, S. A. Gubin, and S. M. Kogarko	774	909
Initiation of Shock-Wave Detonation of Hexogen Mixtures with Liquid Fillers		
- A. N. Afanasenkov and V. A. Danilenko	778	915
Solid Phase Reduction of SnO ₂ in Shock Compression and Mechanical Activation		
- E. G. Avvakumov, V. E. D'yakov, A. I. Matytsin, and A. M. Staver	785	922
Calculation of the Parameters of a Shock Wave near a High-Explosive Charge		
- K. I. Kozorezov and V. V. Sergeev	789	928
Ionization during Detonation of Solid Explosives - A. P. Ershov	798	938
Magnetic Measurements in Shock Waves - A. N. Kiselev	804	945
BRIEF COMMUNICATIONS		
Infrared Emission of a Carbon Disulfide Flame - V. A. Dudkin, V. B. Librovich,		
and V. B. Rukhin	810	953
Efficiency of a High-Explosive Plasma Compressor - A. E. Voitenko and V. I. Kirko	813	956
Compression and Rarefaction Waves in the Impact of Solids - M. S. Kachan	020	
and Yu. A. Trishin	816	958
INDEX	823	
Author Index, Volume 11, Numbers 1-6, 1975		
Tables of Contents, Volume 11, Numbers 1-6, 1975,	827	



